Spinel from Sri Lanka - An update

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Most of the spinels are found in shades of red to purple. Colourless, green and cobalt bearing varieties also been recorded in few locations. Same as other gemstones from Sri Lanka. Spinels also occur in alluvial deposits in south-western and north central parts of the island.

The following subjects will be discussed in the presentation.

1. Mineralogy and Crystallography
2. Geology and Genetic Aspects
3. Gemological and Mineralogical Properties
4. Internal Features
5. Comparison of Properties of Spinel from Different Locations from Sri Lanka (Ratnapura, Horana, Eheliyagoda, Elahera)
6. Chemical Fingerprinting
7. Spectral Fingerprinting

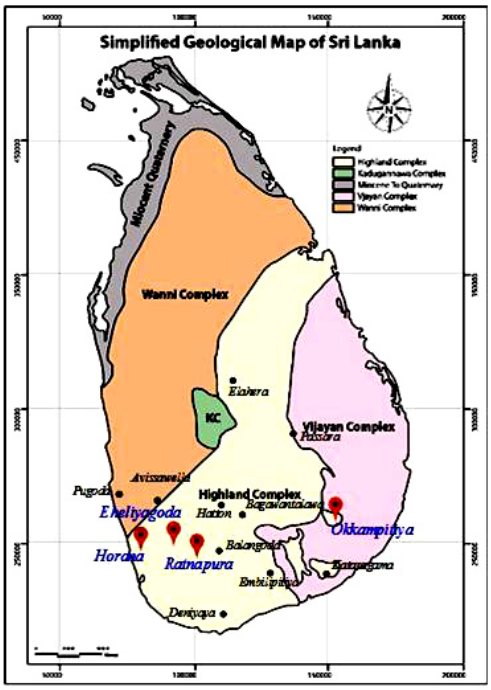

Fig. 1 - Geological map of Sri Lanka with litho-tectonic subdivisions. The locations of the spinel sampling areas used in this study are indicated.

The global distribution of spinel deposits is closely linked to collision, rift and subduction geodynamics. Spinel deposits located in marbles or in neighboring pelitic gneisses are widely known as sources of gem quality spinels. For example deposits in Myanmar, Vietnam, Afghanistan, Tajikistan, Tanzania. The formation of these deposits is explained by metamorphism of Limestones primarily contaminated by aluminous products of weathering , metasomatic transformations of terregenous layers of marble by metamorphic solution and influx of Al into marbles by endogenic solutions related to alkalic magmatism.

Fig. 2 - Orangey-brown, transparent, irregular-rounded crystal of unknown natural hosted by a Horana spinel

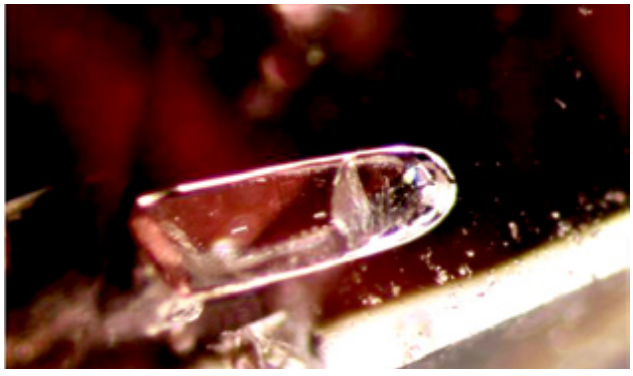

Fig. 3 - Colorless-transparent, elongated-prismatic, rounded apatite crystal.